I claim:

1. A process which comprises polymerizing ethylene and, optionally, an alpha-olefin comonomer in the presence of a supported, activated metallocene catalyst and triisobutylaluminum to produce an ethylene polymer or copolymer;

wherein the supported, activated catalyst is made by:

(a) treating silica with a silane compound in an amount effective to reduce the surface hydroxyl content of the silica;

(b) treating the product from step (a) with an organoboron compound; and

(c) combining the product from step (b) with a Group 4 metallocene complex and an alumoxane such that the aluminum to Group 4 metal (Al/M) molar ratio is within the range of about 20 to about 2000; and

wherein the triisobutylaluminum is added to the reactor in an amount within the range of about 10 to about 1000 moles of triisobutylaluminum per mole of Group 4 metal.

2. The process of claim **1** wherein the comonomer is selected from the group consisting of propylene, 1-butene, 1-hexene, 1-octene, and mixtures thereof.

3. The process of claim **1** wherein the silica is calcined at a temperature within the range of about 100°C to about 600°C prior to step (b).

4. The process of claim **1** wherein the silane compound is hexamethyldisilazane.

5. The process of claim **1** wherein the organoboron compound is selected from the group consisting of triethylborane and triphenylborane.

6. The process of claim **1** wherein the metallocene complex has the structure L_nMX_m, wherein L is a substituted or unsubstituted cyclopentadienyl, indenyl, or fluorenyl ligand; M is a Group 4 transition metal; X is halogen, alkoxy, aryloxy, hydrocarbyl, dialkylamido, or siloxy; n is 1 to 3; m is 1 to 3; and n+m=4.

7. The process of claim **1** wherein the alumoxane is methylalumoxane.

8. The process of claim **1** wherein the aluminum to Group 4 metal molar ratio in step (c) is within the range of about 150 to about 250.

9. The process of claim **1** wherein the triisobutylaluminum is added to the reactor in an amount within the range of about 20 to about 500 moles of triisobutylaluminum per mole of Group 4 metal.

10. A process which comprises polymerizing ethylene and a comonomer selected from the group consisting of 1-butene, 1-hexene, 1-octene, and mixtures thereof, in the presence of a supported, activated metallocene catalyst and triisobutylaluminum to produce an ethylene copolymer;

wherein the supported, activated catalyst is made by:

(a) treating calcined silica with hexamethyldisilazane in an amount effective to reduce the surface hydroxyl content of the silica;

(b) treating the product from step (a) with an organoboron compound selected from the group consisting of triethylborane and triphenylborane; and

(c) combining the product from step (b) with:

i) a Group 4 metallocene complex having the structure L_nMX_m, wherein L is a substituted or unsubstituted cyclopentadienyl, indenyl, or fluorenyl ligand; M is a Group 4 transition metal; X is halogen, alkoxy, aryloxy, hydrocarbyl, dialkylamido, or siloxy; n is 1 to 3; m is 1 to 3; and n+m=4; and

ii) methylalumoxane;

such that the aluminum to Group 4 metal (Al/M) molar ratio is within the range of about 20 to about 2000; and

wherein the triisobutylaluminum is added to the reactor in an amount within the range of about 20 to about 500 moles of triisobutylaluminum per mole of Group 4 metal.